

The Life Course Approach to Obesity: A Focus on Latino Youth

An Interview with Elsie M. Taveras, MD, MPH

It has been documented that Latino children are more likely to face the burdens of overweight and obesity as compared to other ethnicities—even as early as age 2. Elsie Taveras, MD, MPH, Co-Director of the Obesity Prevention Program at the Harvard Pilgrim Health Care Institute, discusses her research on early-life influences of obesity for Latino children and why future studies should be focused on community-level initiatives.

Your expertise and practice involves minority and specifically Latino children; looking at Latino children and adolescents, are there any differences in their health-related concerns compared to children of other ethnicities?

The most recent national statistics indicate that childhood obesity is highly prevalent among all children; about 35% of children ages 6 to 12 years old are overweight or obese, and these rates are disproportionately high among Mexican-American and other Latino children. Even in more recent years, when it looks like the prevalence of obesity has somewhat stabilized, it continues to rise in the Latino population.

What was striking in the most recent national statistics were the rates of obesity even among the youngest of children and the disparities that were present already by 2 years of age among African-American and Latino children compared to white children.

We worry about the medical, psychological, physical sequelae that come from being obese, and being chronically obese. Obesity can lead to several health-related concerns including cardiovascular disease and diabetes. The high rates of obesity among Latino children do place them at higher risk of these health concerns at earlier ages.

What has your focus been in relation to Latino children and obesity and what are some recent findings?

My research group, The Obesity Prevention Program at the Harvard Pilgrim Health Care Institute, has been particularly interested in determinants of childhood obesity starting very early in life—the life course approach

to obesity. What are important influences? When are particular influences important? And through several investigations over the last 7 to 10 years, we have identified a number of risk factors starting in pregnancy through infancy, early childhood and adolescence that influence obesity risk in all children.

Given that Latino children are disproportionately burdened by obesity prevalence already by 2 years of age, the cause of these disparities must have their origins in early life. It is possible that differences in risk factors are beginning before 2 years of age.

Over the last couple of years, my research has focused in part on understanding the emergence of disparities in childhood obesity prevalence and looking for differences in risk factors among Latino, African-American, and white children beginning with risk factors during their mothers' pregnancy.

Earlier last year we published a study¹ that tried to identify when differences in risk factors for obesity begin to emerge. We examined questions including: What are the differences among Latino children in risk factors that we know are related to obesity?

We have found in some of our published studies that there are several differences. Latino children are much more likely, for example, to have a mother who had gestational diabetes during her pregnancy, and we know that gestational diabetes is associated with overweight in offspring. Latino children are also much less likely to be breast fed, and we know from some studies that breastfeeding may be protective of overweight.

Additionally, Latino children are more likely to be introduced to solids early, they are more likely to drink sugar-sweetened beverages, more likely to have a television in their bedroom, more likely to watch more TV than white children, and more likely to get insufficient sleep. All of those are known risk factors for childhood obesity.



Elsie M. Taveras, MD, MPH

When do these differences start to emerge?

The research we published last year seems to indicate that these differences in obesity risk start very early in life. One of the reasons why we see Latino children already disproportionately heavier than their white counterparts is because of some of these really interesting differences started when their mothers were pregnant.

You've studied many influences on childhood obesity, where do you think future research should be focused?

A great deal of research, including my own, has focused on behavioral, interpersonal, and familial influences on obesity and trying to understand what the influences are in children's microenvironments that lead to obesity. How are they different among racial/ethnic minority children, and how might we intervene?

An area where we need more research is on macroenvironmental risk factors, for example, what are the broader determinants of obesity in children, and how do they differ based on race and ethnicity? So a perfect example is: how does the built environment influence physical activity and obesity for Latino children? Those questions to this day remain understudied.

I think a lot of research is focused on what parents are doing, but there needs to be more research to try to understand the context in which parents choose their behaviors for their children and households. Why is it easy for a parent to purchase fast food but fewer fruits and vegetables for their home? It is because their environment makes it easy for them to have more access to fast food and not to fruits and vegetables. That is the environment they live in.

Are there specific styles of research you would like to see happen in the coming years?

I would like to see research that focuses more on promoting sustainable changes at the community-level, in addition to the individual-level behavior change interventions we now know are effective. An excellent example was *Shape Up Somerville* in Massachusetts, a childhood obesity prevention intervention focused on making changes at multiple settings in the community to impact energy intake and expenditure. There are also wonderful examples of community-level statewide interventions in South Australia such as *Romp & Chomp* that have been incredibly effective in changing community policies to prevent childhood obesity.

The research that needs to happen to move childhood obesity prevention forward is to shift the focus more to community-level, system-wide interventions that are most likely to be sustainable.

To what extent can individual parents and families make gradual but simple lifestyle changes, such as**doing more eating at home, changing the types of foods available at home, etc.?**

I think these behaviors are all very important. There is absolutely a role for what we promote and encourage our individual patients and families to do, and there is a strong need to counsel families on helpful food options, around the importance of physical activity, reducing screen time, and the importance of sufficient sleep. Families need our help in steering them in the right directions for lifestyle and behavior changes in their homes, and I think that it is time for us to recognize that what happens in the home is happening within a broader context.

I am a pediatrician; I run a pediatric obesity clinic. I can counsel families repeatedly about making individual behavior changes, but if a family lives in an environment that does not support those behaviors, it is very difficult to make and sustain these changes.

As an example, I can encourage a family to eat more fruits and vegetables and try to get more physical activity on a daily basis. But if that parent lives 3 miles away from the nearest grocery store and the only way for that parent to get to the supermarket where they have fresh fruits and vegetables is by taking three buses, it is almost unfair to expect that a parent in that situation is going to go to such lengths. A parent is going to do what comes easiest to them, and that is to go to the local store or bodega around the corner, that may not have the best options, and very rarely have fresh fruits and vegetables, and buy what is most convenient to them. Similarly, if the closest playground is unsafe, a parent is less likely to take their child to play there on a regular basis even if it is just around the corner.

So I think we need to better understand the context in which families are attempting to make changes and the incredibly obesogenic environment around them. Until we recognize and intervene at those levels, it may be hard to expect behavior change on an individual level.

To answer the question about lifestyle changes, I absolutely agree. That is what I do in my obesity clinic on a weekly basis—counsel families about small changes that they can make in their eating, physical activity, sleep patterns, and television viewing that can impact their obesity risk. But I think we need to move to the next level of how do we influence policy, how do we influence the community? We need to look at what is available through public health, government agencies, community-level programs, and regulations to make it easier for a parent to make the right choices for their family.

As far as other clinicians out there working within these same parameters, do you have any suggestions for obesity prevention strategies when working with ethnic minority families?

There are several. My clinical team works predominantly with African-American and Latino children, and I find that a lot of the counseling that we provide is based on a

clear understanding of their cultural beliefs and a clear understanding of how we propose healthier alternatives within their cultural framework.

As an example, instead of counseling a family to essentially replace everything that they eat in their diet, we tend to know some of the cultural diets of our Latino families. So in our clinic, we'll work with families and say, "How about if, instead of frying your plantains, you bake them? Or instead of a smaller salad and a large portion of rice, you try to make that salad portion half of your plate and possibly switch to brown rice? Or instead of cooking your chicken in lard, you cook it in olive oil," which we know has a much better fat profile than lard.

One of the things that we have learned to do is to really work within our Latino families' cultural framework and try to get a good understanding of their underlying beliefs about eating, physical activity, sleep, and TV and try to work within that framework so that it is easier for families to understand what we are asking them to do.

Headed by Friedman School of Nutrition Science and Policy at Tufts University. **Shape Up Somerville: Eat Smart. Play Hard** was a 3-year (2002-2005), environmental change intervention designed to prevent obesity in culturally diverse, high-risk, early-elementary school children. For more information, see the Tufts University website at **nutrition.tufts.edu**

Reference

1. Taveras EM, Gillman MW, Kleinman K, Rich-Edwards JW, Rifas-Shirman, SL. Racial/ethnic differences in early-life risk factors for childhood obesity. *Pediatrics*. 2010;125:686-695.

—Jamie Devereaux
Features Editor